



## **DEPARTMENT OF COMMERCE**

### **Foreign-Trade Zones Board**

**[B-31-2021]**

#### **Foreign-Trade Zone (FTZ) 45 – Portland, Oregon; Notification of Proposed Production Activity; Lam Research Corporation (Semiconductor Production Equipment, Subassemblies and Related Parts), Tualatin and Sherwood, Oregon**

The Port of Portland, grantee of FTZ 45, submitted a notification of proposed production activity to the FTZ Board on behalf of Lam Research Corporation (Lam), located in Tualatin and Sherwood, Oregon. The notification conforming to the requirements of the regulations of the FTZ Board (15 CFR 400.22) was received on April 14, 2021.

Lam already has authority to produce semiconductor production equipment, subassemblies and related parts within Subzone 45H. The current request would add finished products and foreign status materials/components to the scope of authority. Pursuant to 15 CFR 400.14(b), additional FTZ authority would be limited to the specific foreign-status materials/components and specific finished products described in the submitted notification (as described below) and subsequently authorized by the FTZ Board.

Production under FTZ procedures could exempt Lam from customs duty payments on the foreign-status materials/components used in export production. On its domestic sales, for the foreign-status materials/components noted below and in the existing scope of authority, Lam would be able to choose the duty rates during customs entry procedures that apply to the finished products in its existing scope of authority and to the finished products listed below (duty free).

Lam's proposed finished products include tools and process modules for – and installation, maintenance, repair, retrofit, and upgrade kits for tools and process modules for – the following: chemical vapor deposition, physical vapor deposition, and plasma dry etch of materials on a wafer for semi-conductor production; plasma etch of the bevel edge of a wafer to remove yield-limiting residues and defects of a wafer surface for semi-conductor production; stripping of photoresist material on a wafer for semi-conductor production; ultraviolet thermal processing of a wafer surface for semi-conductor production; and, wafer cleaning between chip-processing steps to remove yield-limiting residues and defects of a wafer surface for semi-conductor production.

Lam's proposed finished products also include installation, maintenance, repair, retrofit, and upgrade kits for the following: machines for the production of semiconductors, namely etch systems; machines for manufacturing masks and assembling electronic circuits; semiconductor equipment and parts and assemblies; chemical/mechanical planarization and other wafer surface modification equipment; conductor material deposition process modules and machines for wafer packaging; transport modules; and, wafer transport robots.

Finally, Lam's proposed finished products include: chemical/mechanical planarization and other wafer surface modification equipment; conductor material deposition process modules and machines for wafer packaging; transport modules; and, wafer transport robots. Lam would be able to avoid duty on foreign-status components which become scrap/waste. Customs duties also could possibly be deferred or reduced on foreign-status production equipment.

The materials/components sourced from abroad include: diluted hydrogen gas used for calibration; freon gas; ammonia hydroxide solutions; potassium phosphate buffer solutions; sodium bicarbonate buffer solutions; hydrogen peroxide; polyvinyl chloride (PVC) cement; mineral oils used as machine lubricants; synthetic petroleum-

based hydrocarbon greases and similar synthetic oils and greases; thermal joint compounds; scouring pastes and powders used for wafer polishing activities; polymer-based sealants, glues, and pastes used in the production and installation of semiconductor manufacturing equipment; PVC-based sealants, glues, pastes, and cements used in the production and installation of semiconductor manufacturing equipment; silicon-based sealants, glues, pastes, and cements used in the production and installation of semiconductor manufacturing equipment; polyglycol dimethacrylate sealants, glues, pastes, and cements used in the production and installation of semiconductor manufacturing equipment; thermal transfer print ribbon films; organic solvents for cleaning; sealants with activators; fluorine based coolants; epoxy resins; silicone cements and fillers; panels, plates, and simple structural components of plastics; cutting sheets of plastics; shims and simple spacers of plastics; foam block silicon adhesive; panels, plates, and simple structural components of rigid plastics; anti-static polyethylene bags used as packaging material; clear nylon heat sealed bags; plastic ductwork; heavy duty plastic gloves for acid protection; handles and levers of plastic used in semiconductor manufacturing equipment; hinges, mounts, latches, and brackets of plastic of a type for furniture; retaining rings of rubber; soft rubber tubing used in fluid/gas distribution; soft rubber tubing with fittings used in fluid/gas distribution; vulcanized rubber belts used in wafer and equipment movement; disposable gloves made of nitrile synthetic rubber used for clean room environments; tri-polymer blend non-disposable gloves used for clean room environments; plastic tool containers; plastic case covers; silicone plastic tablet covers; non-textile, non-silicon antistatic tissues and cleaning wipes with special surfactants for use in clean room environments; paperboard and cardboard packaging materials; paperboard labels; schematics, diagrams, and similar technical drawings; right to use documentation; velcro tape, nylon line and nylon support sling (parts of kits that are installed onto wafer fabrication equipment systems);

clear acetate face shields and protective caps; high-density polyethylene hard hats and protective caps; abrasive pads, disks and, strips for polishing semiconductor wafers; slurry troughs and similar ceramic dispensary articles; fused silica rods and pipes; safety glass windows; lamp bulbs; reflectors and collimators; fused silica and fused quartz components, disks, windows, liners, rings, tubes, holders, and funnels for laboratory semiconductor manufacturing equipment; beakers and similar lab equipment for holding/conveying chemicals; viewports for laboratory semiconductor manufacturing equipment; fiberglass gaskets, spacers, and fasteners; fiberglass rings and washers for use in semiconductor manufacturing equipment process chambers; iron fittings for metal tubing used in fluid/gas distribution equipment; stainless steel butt weld fittings; stainless steel canisters and chemical tanks used for maintaining chemicals for semiconductor manufacturing equipment of 304 or 316L; stainless steel rope winches; steel support cables and wires – braided, used as structural elements in semiconductor manufacturing equipment; steel guard chains, driver chains, roller chains and links used in mechanical equipment for wafer manufacturing equipment or installation equipment; steel roller chains and other belt chains used in mechanical equipment for wafer manufacturing equipment or installation equipment; steel tie down straps; steel pins used as fasteners for semiconductor manufacturing equipment; steel eyebolts; steel leaf springs; cast steel brackets for support of semiconductor manufacturing equipment components; copper conductor bars for transmission of radio frequency (RF) energy; copper tubing used in fluid distribution in semiconductor manufacturing equipment process; copper pipe fittings; aluminum top hat rails and related clips; bus bars, ground bars, and rods of aluminum; aluminum tape; aluminum labels; vacuum port screens of aluminum; tin anodes for electrolytic processing of metals on wafers; tin anodes and pellets for electrolytic processing of metals on wafers; jab saws; hammers; insertion or extractions tool sets; helicoil or pipe tapping tools; retractable knives used in

installation/maintenance of equipment; scissors used in installation/maintenance of equipment; metal latches with locks; hardware type brackets and mounts of metal; magnetically actuating cylinders; air cylinders for linear acting engines and motors; pins, pin lifters and, shims for linear acting engines and motors; hydraulic fluid power pumps; cryocompressors for fluid temperature control; condensers and compressors used in semiconductor manufacturing equipment; balancing scales; weight measurement equipment; weights for measurement equipment; fire suppression extinguishing systems; nozzles and orifices for fluid distribution system; hoists for wafer transport robots; scissor jacks; lift fixtures and lift fixtures parts for installation of semiconductor manufacturing equipment; calibration disks for semiconductor manufacturing equipment; barcode and thermal printers; slug buster punches; equipment chucks and fixtures for test and installation and related parts; electric drills, punches and, blades; helicoil repair kits; electric pipe and cable cutters; tablet docking stations; plates, pads, and lift fixtures, and related components of plastic, rubber, metal, thermoplastic polyetherimide (PEI) resins and polytetrafluoroethylene (PTFE) pins and materials; valve covers; valve adapters; valve ball; valve panels; valve doors; valve plates; valve pins; tapered roller bearings; needle roller bearings; cylindrical roller bearings; roller bearings, ball screws and, radial ball bearings; shafts, rollers, blocks and balls for bearings; chemical/mechanical planarization and other wafer surface modification equipment; gate, transport and loadlock valves that are specifically designed for semiconductor applications; machines for manufacturing masks and assembling electronic circuits; weldments tubing of semiconductor manufacturing equipment tools; rings, arms, cups, holders, plates, adapters, panels, pedestals and other inner components designed specifically for semiconductor manufacturing equipment tools; semiconductor manufacturing equipment sub-assemblies; structural elements of other metals, plastic or aluminum enclosures or assemblies with threaded inserts, screws,

dowel pins, springs, and connectors for housing, enclosures, covers, and skins for semiconductor manufacturing equipment; bodies and parts of gate, transport and loadlock valves that are specifically designed for semiconductor applications; air and exhaust ducts, end effectors and media dispensers designed specifically for semiconductor manufacturing equipment; DC motors with output  $> 750 \text{ W}$  and  $\leq 75 \text{ kW}$ ; AC motors with output  $> 74.6 \text{ W}$  and  $\leq 746 \text{ W}$ ; pistons, guards and similar motor components; electro-magnetic load coils and sensor magnets; alkaline batteries; lead storage batteries; nickel metal hybrid batteries; induction heaters for semiconductor manufacturing equipment; rod-type sheathed cartridge heaters used to heat gases or liquids in distribution piping for semiconductor manufacturing equipment; thermofoil used in heaters for semiconductor manufacturing equipment; input/output cards and panels for network equipment; load cell amplifiers, servo amplifiers and proximity amplifiers; digital video recorders; videos on DVD; flash memory cards; transponder readers; cathode-ray tube monitors for use with automatic data processing (ADP) machines; LCD color flat screen monitors for use with ADP machines; camera covers and holders of aluminum, stainless steel, other metals, and plastic materials; smoke detectors and sensors; sensors, lenses, frames and other parts of smoke detectors; aluminum electrolytic fixed capacitors; dielectric fixed capacitors; tube holders and mountings of polyvinylidene fluoride, polyvinylidene difluoride (PVDF), other metals, or plastic materials; connectors for optical cables; chassis, panels and boards for power distribution modules and similar controllers; supports, ferrules, fuse holders and similar parts of connectors; incandescent lamps and bulbs; discharge lamps other than UV lamps; light-emitting diode (LED) lamps used for illumination in semiconductor manufacturing equipment; electromagnetic interference (EMI) shield rings; semiconductor transistors used in electronic equipment; power block modules; semiconductor/crystal oscillators used in electronic equipment; solid state devices

consisting of an LED and a photo diode; cables for voltage; graphite electrodes; insulators and insulator elements of quartz; focal lenses used for factory inspections; protective eyeglass frames; goggles and similar protective spectacles; compound optical microscopes; lasers for metrology and endpoint systems; optical light guide lenses; syringes; temperature monitors and hydrometers; thermocouple sensors or adapters; diaphragms, guards, adapters and gauges, vacuum filters and similar parts for flow and pressure meters; monochromators; digital counters; infrared sensors and radiation sensing equipment; multimeters; holding/moving carts for power distribution equipment; fluorescent lamps fixtures; and, pens and markers (duty rate ranges from duty-free to 20%). The request indicates that certain materials/components are subject to duties under Section 232 of the Trade Expansion Act of 1962 (Section 232) or Section 301 of the Trade Act of 1974 (Section 301), depending on the country of origin. The applicable Section 232 and Section 301 decisions require subject merchandise to be admitted to FTZs in privileged foreign status (19 CFR 146.41).

Public comment is invited from interested parties. Submissions shall be addressed to the Board's Executive Secretary and sent to: [ftz@trade.gov](mailto:ftz@trade.gov). The closing period for their receipt is **[INSERT DATE 40 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

A copy of the notification will be available for public inspection in the "Reading Room" section of the Board's website, which is accessible via [www.trade.gov/ftz](http://www.trade.gov/ftz).

For further information, contact Christopher Wedderburn at [Chris.Wedderburn@trade.gov](mailto:Chris.Wedderburn@trade.gov).

Dated: April 22, 2021.

**Andrew McGilvray,**

*Executive Secretary.*

